Translation

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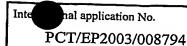
INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

510,311

1 1 2 3							
Applicant's or agent's file reference 2002P20142WO	FOR FURTHER A	HER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)					
International application No.	International filing d	ate (day/month/year)	Priority date (day/month/year)				
PCT/EP2003/008794	07 August 20	03 (07.08.2003)	12 September 2002 (12.09.2002)				
International Patent Classification (IPC) or national classification and IPC G06F 11/16							
Applicant SIEMENS AKTIENGESELLSCHAFT							
 This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36. 							
2. This REPORT consists of a total of	5 sheets	s, including this cover s	heet.				
This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).							
These annexes consist of a total of sheets.							
3. This report contains indications relating to the following items:							
I Basis of the report							
II Priority	II Priority						
III Non-establishment o	f opinion with regard t	to novelty, inventive ste	ep and industrial applicability				
IV Lack of unity of inve	ntion						
V Reasoned statement of citations and explana	V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement						
VI Certain documents ci	ted						
VII Certain defects in the international application							
VIII Certain observations on the international application							
Date of submission of the demand Date of completion of this report			f this report				
21 November 2003 (21.11.2003)		11 June 2004 (11.06.2004)					
Name and mailing address of the IPEA/EP		Authorized officer					
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Facsimile No.		Telephone No.					

INTERNATIONAL PRELIMINARY EXAMINATION REPORT



I. Basis of the report	1 C1/EF 2003/008/94
1. With regard to the elements of the international application:*	
the international application as originally filed	
the description:	
pages 1-16	, as originally filed
pages	, filed with the demand
pages, filed with the let	tter of
the claims:	
pages1-8	an animinal Co
pages, as amended (, as originally filed
pages	, filed with the demand
pages, filed with the lett	ter of
the drawings:	
pages1/2-2/2	
12.00c	, as originally filed
pages, filed with the lett	, filed with the demand
the sequence listing part of the description:	ter of
	, as originally filed
	filed with the demand
, filed with the letter	er of
2. With regard to the language, all the elements marked above were available or furnished the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language the language of a translation furnished for the purposes of international search (under Rule 48.3(b)).	which is:
the language of the translation furnished for the purposes of international preli or 55.3).	iminary examination (under Rule 55.2 and/
With regard to any nucleotide and/or amino acid sequence disclosed in the internation was carried out on the basis of the sequence listing: contained in the international application in written form. filed together with the international application in computer readable form. furnished subsequently to this Authority in written form. furnished subsequently to this Authority in computer readable form.	international application, the international
The statement that the subsequently furnished written sequence listing document international application as filed has been furnished.	
The statement that the information recorded in computer readable form is ide been furnished.	entical to the written sequence listing has
The amendments have resulted in the cancellation of:	
the description, pages	
the claims, Nos.	
the drawings, sheets/fig	
This report has been established as if (some of) the amendments had not been ma beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c))	ade, since they have been considered to go
Replacement sheets which have been furnished to the receiving Office in response to an in this report as "originally filed" and are not annexed to this report since they a and 70.17).	invitation under Article 14 are referred to do not contain amendments (Rule 70.16
Any replacement sheet containing such amendments must be referred to under item $\it l$ and	l annexed to this report.

V.	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
	citations and explanations supporting such statement

1.	Statement			
	Novelty (N)	Claims	1-8	YES
		Claims		NO
	Inventive step (IS)	Claims	1-8	YES
		Claims		NO NO
	Industrial applicability (IA)	Claims	1-8	YES
		Claims		NO

- 2. Citations and explanations
 - 1. Reference is made to the following document:

D1: EP-A-0 104 490 (KRUPP GMBH) 4 April 1984 (1984-04-04)

- 2. PCT Article 33
- a. Claim 1

Field: Event synchronisation in error-tolerant systems with redundant processor devices.

Prior art: D1, which is considered the closest prior art, discloses a method for synchronising external events which are supplied to and influence a module (the method in general: page 3, line 24 - page 6, line 2), the module being provided for the parallel processing of a first number of instructions (each redundant system processes a certain number of instructions in parallel) according to which the external events are intermediately stored (implicit from page 4, line 29 - page 5, line 11), the stored external events being retrieved in a separate operating mode of the module for processing via at

least one execution unit of the module (page 5, lines 14-21), the module entering into this operating mode after a set second number of instructions has been processed (page 5, lines 1-14, page 9, lines 5-13), and a counter detecting the number of instructions carried out by the execution unit since the last time the separate operating mode was exited (implicit from page 9, lines 8-13).

Characterising features: D1 does not disclose that the module is shifted into the individual command execution mode as a function of the counter content.

The subject matter of claim 1 is therefore novel (PCT Article 33(2)).

Technical effect: The problem addressed by the present invention can therefore be considered that of being able to present external events at identical locations in the command execution of redundant CPUs even when the redundant CPU cannot be securely stopped at an identical location in the sequence of commands.

Inventive step: The solution proposed to this problem is neither disclosed nor suggested by the available prior art. An inventive step (PCT Article 33(3)) can therefore be acknowledged.

b. Claims 6 and 7:

Independent claims 6 and 8 contain all the features of claim 1. They therefore likewise meet the novelty and inventive step requirements of PCT Article 33(2) and (3).

c. Other claims:

Claims 2-5 and 8 are dependent on claim 1 or claim 7 and therefore likewise meet the PCT novelty and inventive step requirements.

3. Comments:

The present application contains more than one independent claim in the same category, i.e. three independent device claims. This contravenes the requirements of PCT Article 6 according to which claims must be clear and <u>concise</u>.